



Rec'd PCTO 14 JAN 2005

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/00914

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. ⁷: C07D 215/24, 215/26, 215/28, 215/48; A61K 31/47, 31/4709; A61P 25/28

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

ELECTRONIC DATABASES, SEE BELOW

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

STN File: CA. Substructure search based on formula I, keywords: Alzheimer, neurodegenerative.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 3932338 A1 (NMI NATURWISSENSCHAFTL U MEDIZ). 11 April 1991 See Abstract.	1-7, 9-28
X	US 5952346 A (HEITSCH et al). 14 September 1999. See whole document, especially Tables 1-7.	1-3, 7, 9-28
X	WO 00/23421 A1 (IDUN PHARMACEUTICALS, INC). 27 April 2000. See Example 34.	1, 2, 7, 9-28

☒ Further documents are listed in the continuation of Box C☒ See patent family annex

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search
26 August 2003

Date of mailing of the international search report

17 SEP 2003

Name and mailing address of the ISA/AU

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PO BOX 200, WODEN ACT 2606, AUSTRALIA
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STUART BARROW

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/00914

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00/58344 A1 (MALINA). 5 October 2000. See whole document.	1-3, 7, 9-27
X	EP 1074257 A1 (PFIZER PRODUCTS INC). 7 February 2002. See Example 2k	1, 2, 4, 9-28
X	WO 02/24701 A2 (PHARMACIA & UPJOHN COMPANY). 28 March 2002. See Examples 125 and 252-263.	1, 2, 4, 5, 9-28
X	WO 02/24702 A1 (BRISTOL-MYERS SQUIBB COMPANY). 28 March 2002. See Example 341.	1, 2, 7, 9-28
P, X	WO 02/067939 A1 (BRISTOL-MYERS SQUIBB COMPANY). 6 September 2002. See Examples 136 and 548.	1, 2, 7, 9-28
P, X	WO 03/004016 A1 (GRÜNENTHAL GMBH). 16 January 2003. See Example 1.	1-3, 7, 9-28
P, X	WO 03/004483 A1 (GRÜNENTHAL GMBH). 16 January 2003. See Examples 65 and 66.	1-3, 7, 9-28
P, X	WO 03/005038 A1 (UNIVERSITE LOUIS PASTEUR). 16 January 2003. See whole document.	1-3, 7, 9-27
P, X	WO 03/010146 A1 (NEURO3D). 6 February 2003 See whole document.	1-7, 9-28
P, X	Chemical Abstracts Accession No: 138:385173, See CAS Registry No: 527722-22-1 & WO 03/040096 A2 (ELAN PHARMACEUTICALS INC et al). 15 May 2003.	1-3, 7, 9-28
P, X	WO 03/047572 A1 (MERCK PATENT GMBH). 12 June 2003. See page 19, lines 23, 27	1, 2, 7, 9-28
A	WO 99/45907 A2 (THE GENERAL HOSPITAL CORPORATION). 16 September 1999. Cited in the application. See whole document.	

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/00914

Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :

because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos : 1-29 (in part)

because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

A preliminary search of the claimed subject matter resulted in a very large number of documents likely to anticipate the present claims. The search has therefore been restricted to the exemplified subject matter. The search is not considered to be complete.

Continued on Separate Sheet

3. ☐ Claims Nos :

because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

The use of compounds with an 8-hydroxyquinoline nucleus in the treatment of neurodegenerative disorders such as Alzheimer's disease appears to be known in the art. This is supported by the extensive provisos characterising the claims. Therefore, the feature of this nucleus can not be used as a "special technical feature" providing unity to the claims. The claims lack unity *a posteriori*.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims

2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

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Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: I

The terms "an antioxidant" and "a targeting moiety" are not sufficiently well-defined to allow a search.

Proviso (c) in claim 28 is not clear.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU03/00914

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report			Patent Family Member				
DE	3932338	NONE					
US	5952346	DE	19642290	EP	835659	JP	10130144
		DE	19729140				
WO	200023421	AU	200012215	CA	2347792	EP	1123272
		NO	20011968	US	6242422	US	2002091089
WO	200058344	EP	1165600	FR	2791263		
EP	1074257	AU	200048976	CA	2314867	HU	200003118
		JP	2001064178	NZ	506154	US	6231833
		US	2002132811	US	2003055061	AU	31893/95
		BR	9504230	CA	2200959	CN	1168672
		CZ	9700947	EP	783503	FI	971310
		HR	950507	HU	77354	IL	115384
		NO	971416	NZ	290936	PL	319636
		SI	9520096	SK	325/97	TR	960273
		ZA	9508223	WO	9610571	US	5852031
WO	200224701	AU	200192898	AU	200194606	AU	200194718
		CA	2422950	EP	1319004	EP	1319005
		EP	1323120	US	2002077318	US	2002107278
		WO	200224700	WO	200235454		
WO	200224702	AU	200188213	AU	200169943	BR	200113980
		CA	2413417	CA	2423071	CZ	20024214
		EP	1299094	EP	1319007	NO	20026194
		NO	20031266	US	2002173445	WO	200200617
		AU	200215609	CA	2413683	EP	1299385
		NO	20026167	US	2003114420	WO	200200653
		AU	200167008	CA	2413596	EP	1297108
		US	2002058290	WO	200200716	WO	2003053354
WO	2002067939	NONE					
WO	2003004016	DE	10132726				
WO	2003004483	NONE					
WO	2003005038	FR	2827045				
WO	2003010146	FR	2827599				

INTERNATIONAL SEARCH REPORT

International application No.

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PCT/AU03/00914

WO	2003040096	NONE					
WO	2003047572	DE	10159453				
WO	9945907	AU	29981/99	CA	2323458	EP	1061923
		US	6323218	US	2002082273		
							END OF ANNEX

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Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: I

The terms "an antioxidant" and "a targeting moiety" are not sufficiently well-defined to allow a search.

Proviso (c) in claim 28 is not clear.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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		NO	20011968	US	6242422	US 2002091089
WO	200058344	EP	1165600	FR	2791263	
EP	1074257	AU	200048976	CA	2314867	HU 200003118
		JP	2001064178	NZ	506154	US 6231833
		US	2002132811	US	2003055061	AU 31893/95
		BR	9504230	CA	2200959	CN 1168672
		CZ	9700947	EP	783503	FI 971310
		HR	950507	HU	77354	IL 115384
		NO	971416	NZ	290936	PL 319636
		SI	9520096	SK	325/97	TR 960273
		ZA	9508223	WO	9610571	US 5852031
WO	200224701	AU	200192898	AU	200194606	AU 200194718
		CA	2422950	EP	1319004	EP 1319005
		EP	1323120	US	2002077318	US 2002107278
		WO	200224700	WO	200235454	
WO	200224702	AU	200188213	AU	200169943	BR 200113980
		CA	2413417	CA	2423071	CZ 20024214
		EP	1299094	EP	1319007	NO 20026194
		NO	20031266	US	2002173445	WO 200200617
		AU	200215609	CA	2413683	EP 1299385
		NO	20026167	US	2003114420	WO 200200653
		AU	200167008	CA	2413596	EP 1297108
		US	2002058290	WO	200200716	WO 2003053354
WO	2002067939	NONE				
WO	2003004016	DE	10132726			
WO	2003004483	NONE				
WO	2003005038	FR	2827045			
WO	2003010146	FR	2827599			

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Information on patent family members

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WO	2003040096	NONE				
WO	2003047572	DE	10159453			
WO	9945907	AU	29981/99	CA	2323458	EP 1061923
		US	6323218	US	2002082273	
						END OF ANNEX

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference DAB:ST:FP18112	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;">FOR FURTHER ACTION</div> <div>see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.</div> </div>	
International application No. PCT/AU03/00914	International filing date (<i>day/month/year</i>) 16 July 2003	(Earliest) Priority Date (<i>day/month/year</i>) 16 July 2002
Applicant PRANA BIOTECHNOLOGY LIMITED et al		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 7 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished
2. ☒ Certain claims were found unsearchable (See Box I).
3. ☒ Unity of invention is lacking (See Box II).
4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.
☐ the text has been established by this Authority to read as follows:
5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant
☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.
☐ because the applicant failed to suggest a figure
☐ because this figure better characterizes the invention

☐ None of the figures

Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :

because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos : 1-29 (in part)

because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

A preliminary search of the claimed subject matter resulted in a very large number of documents likely to anticipate the present claims. The search has therefore been restricted to the exemplified subject matter. The search is not considered to be complete.

Continued on Separate Sheet

3. ☐ Claims Nos :

because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

The use of compounds with an 8-hydroxyquinoline nucleus in the treatment of neurodegenerative disorders such as Alzheimer's disease appears to be known in the art. This is supported by the extensive provisos characterising the claims. Therefore, the feature of this nucleus can not be used as a "special technical feature" providing unity to the claims. The claims lack unity *a posteriori*.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims

☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.